



# Universitas Kristen Indonesia

## Fakultas Kedokteran

**SURAT KEPUTUSAN**  
**No. : 221/UKI.F5.D/HKP.3.5.6/2021**  
tentang

**PENUGASAN TENAGA AKADEMIK DALAM MEMBERIKAN KULIAH PAKAR  
PIMPINAN FAKULTAS KEDOKTERAN UNIVERSITAS KRISTEN INDONESIA**

- MENIMBANG** : Bahwa untuk kelancaran proses belajar mengajar dan meningkatkan mutu pendidikan di FK UKI diperlukan penugasan tenaga akademik FK UKI untuk memberikan Kuliah Pakar
- MENGINGAT** : 1. Peraturan Pemerintah No. 60 tahun 1999 tentang Pendidikan Tinggi  
2. Surat Keputusan Dekan FK UKI No. 53/SK/FK UKI/11.2006 tanggal 21 November 2006 tentang Pemberlakuan Kurikulum Berbasis Kompetensi (KBK) di FK UKI  
3. Surat Keputusan Rektor UKI No. 90/UKI.R/SK/SDM.8/2018 tentang pengangkatan Dekan Fakultas Kedokteran UKI  
4. Surat keputusan pengangkatan sebagai tenaga akademik

**MEMUTUSKAN**

- MENETAPKAN** : 1. Penugasan dalam memberikan Kuliah Pakar :
- |              |                               |
|--------------|-------------------------------|
| Nama         | dr. Fajar L. Gultom, Sp.PA    |
| Departemen   | Patologi Anatomi              |
| Blok         | 18 (Sistem Indera)            |
| Judul Materi | Patologi anatomi Mata dan THT |
| Semester     | Genap 2020/2021               |
| Kelas        | A : 0,21 SKS<br>B : 0,21 SKS  |
| SKS          | 0,42 SKS                      |
2. Apabila dikemudian hari ternyata terdapat kekeliruan dalam Surat Keputusan ini akan diperbaiki sebagaimana mestinya

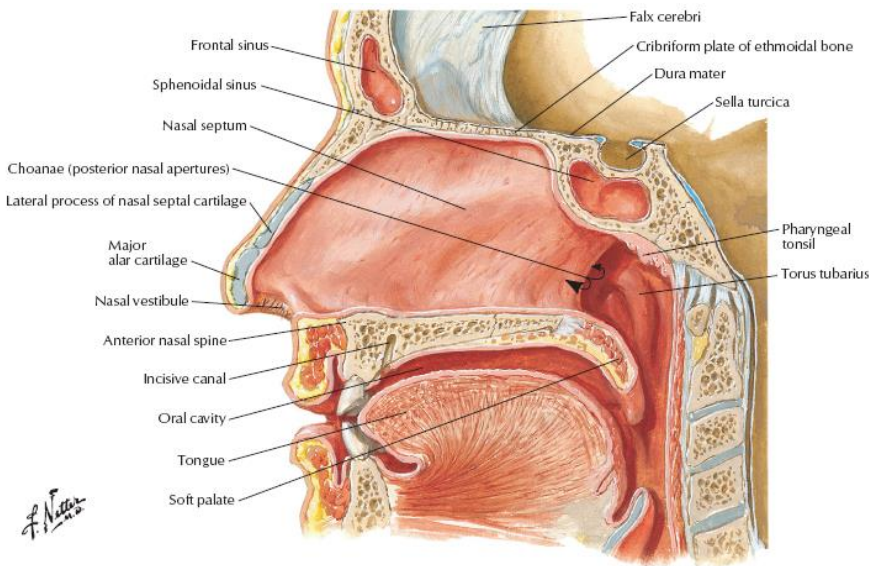
Asli Surat Keputusan ini disampaikan kepada yang bersangkutan untuk diketahui

Ditetapkan di : Jakarta  
Pada tanggal : 04 Juni 2021  
Dekan,  
  
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NIP. UKI. 031 545

Tembusan: Wakil Dekan Bidang Akademik FKUKI

● RENDAH HATI ● BERBAGI DAN PEDULI ● PROFESIONAL ● BERTANGGUNG JAWAB ● DISI

# Head and Neck Eye Pathology



Fajar L. Gultom  
Departemen Patologi Anatomi FK UKI  
2021

# SKDI 2012

TELINGA		HIDUNG		
<i>Telinga, Pendengaran, dan Keseimbangan</i>		<i>Hidung dan Sinus Hidung</i>		
65	Tuli (kongenital, perseptif, konduktif)	86	Deviasi septum hidung	2
66	Inflamasi pada aurikular	87	Furunkel pada hidung	4A
67	Herpes zoster pada telinga	88	Rhinitis akut	4A
68	Fistula pre-aurikular	89	Rhinitis vasomotor	4A
69	Labirintitis	90	Rhinitis alergika	4A
70	Otitis eksterna	91	Rhinitis kronik	3A
71	Otitis media akut	92	Rhinitis medikamentosa	3A
72	Otitis media serosa	93	Sinusitis	3A
73	Otitis media kronik	94	Sinusitis frontal akut	2
74	Mastoiditis	95	Sinusitis maksilaris akut	2
75	Miringitis bullosa	96	Sinusitis kronik	3A
76	Benda asing	97	Benda asing	4A
77	Perforasi membran timpani	98	Epistaksis	4A
78	Otosklerosis	99	Etmoiditis akut	1
79	Timpanosklerosis	100	Polip	2
80	Kolesteatoma	<b><i>Kepala dan Leher</i></b>		
81	Presbiakusis	101	Fistula dan kista brankial lateral dan medial	2
82	Serumen prop	102	Higroma kistik	2
83	Mabuk perjalanan	103	Tortikolis	3A
84	Trauma akustik akut	104	Abses Bezold	3A
85	Trauma aurikular			3B

# SKDI 2012

## SISTEM INDRA

3

No			<b>Bola Mata</b>	<b>Retina</b>	
			31 Endoftalmitis	53 Ablasio retina	2
			32 Mikroftalmos	54 Perdarahan retina, oklusi pembuluh darah retina	2
<b>Konjunktiva</b>	<b>Sklera</b>		<b>Anterior Chamber</b>	55 Degenerasi makula karena usia	2
		33 Hifema	56 Retinopati (diabetik, hipertensi, prematur)	2	
		34 Hipopion	57 Korioretinitis	1	
			<b>Cairan Vitreous</b>	<b>Diskus Optik dan Saraf Mata</b>	
1	21 Skl		35 Perdarahan Vitreous	58 Optic disc cupping	2
2	22 Epi		<b>Iris dan Badan Silier</b>	59 Edema papil	2
3	<b>Kornea</b>	Ero	36 Iridosisklitis, iritis	60 Atrofi optik	2
4		23 Ber	37 Tumor iris	61 Neuropati optik	2
5		24 Luk	<b>Lensa</b>	62 Neuritis optik	2
<b>Kelopak Ma</b>		25 Ker	38 Katarak	<b>Glaukoma</b>	
	26 Ker	39 Afakia kongenital	63 Glaukoma akut	3B	
	27 Ede	40 Dislokasi lensa	64 Glaukoma lainnya	3A	
	28 Ker	<b>Akomodasi dan Refraksi</b>			
9	30 Xer	41 Hipermetropia ringan	4A	←	
10	Entropion	42 Miopia ringan	4A	←	
11	Trikiasis	43 Astigmatism ringan	4A	←	
12	Lagofthalmus	44 Presbiopia	4A	←	
13	Epikantus	45 Anisometropia pada dewasa	3A		
14	Ptosis	46 Anisometropia pada anak	2		
15	Retraksi kelopak	47 Ambliopia	2		
16	Xanthelasma	48 Diplopia binokuler	2		
<b>Aparatus Lakrimalis</b>		49 Buta senja	4A	←	
	17 Dakrioadenitis	50 Skotoma	2		
	18 Dakriosistitis	51 Hemianopia, bitemporal, and homonymous	2		
	19 Dakriostenosis	52 Gangguan lapang pandang	2		
20	Laserasi duktus la				

# Head – Neck (ENT)

- **Oral cavity**
- **Upper airways:** nose, pharynx, larynx, nasal sinuses
- **Ears**
- Neck → thyroid → endocrine
- Salivary glands

# Basic Concepts

- **Degenerative**
- **Inflammatory/ Infection**

*\*Inflammation is not synonymous with infection. Inflammation may be caused by an infection (e.g., postoperative staphylococcal endophthalmitis), but it may also be caused by noninfectious agents, such as chemical burns. Conversely, infection is not always accompanied by significant inflammation. For example, in certain diseases of the immune system, widespread infection may be present, but the patient is incapable of mounting an inflammatory response.*

- **Neoplasia**

# **Basic Concepts**

**Etiology**

**Pathogenesis**

**Morphology**

**Clinical Manifestations**

# Oral Cavity

- ~~Diseases of teeth & supporting structures~~
- Inflammation/ reactive lesion
- Infection
- Leukoplakia
- Squamous tumors: benign - malignant
- Odontogenic cysts/ tumor



# Inflammation/ Reactive lesion

## Aphthous ulcers

- Common, recurr, painful, superficial oral ulceration
- Unknown etiology
- Single/ multiple, shallow, hyperemic ulcer



# Inflammation/ Reactive lesion

## **Irritation fibroma/ traumatic fibroma**

- Submucosal nodular mass, reactive proliferation, repetitive trauma, surgical excision



# Inflammation/ Reactive lesion

## Pyogenic granuloma

- Inflammatory lesion in gingiva, children, pregnant ♀
- Surgical excision



# Infection

- HSV-1 (oral) and HSV-2 (genital) infections.
- Oral candidiasis (thrush)
  - Candida normal flora
  - Immune status, strain *C. albicans*, flora normal composition

# Pre-cancer

## Leukoplakia

- White patch – plaque, cannot be scraped off
- **Premalignant until proven otherwise!!**



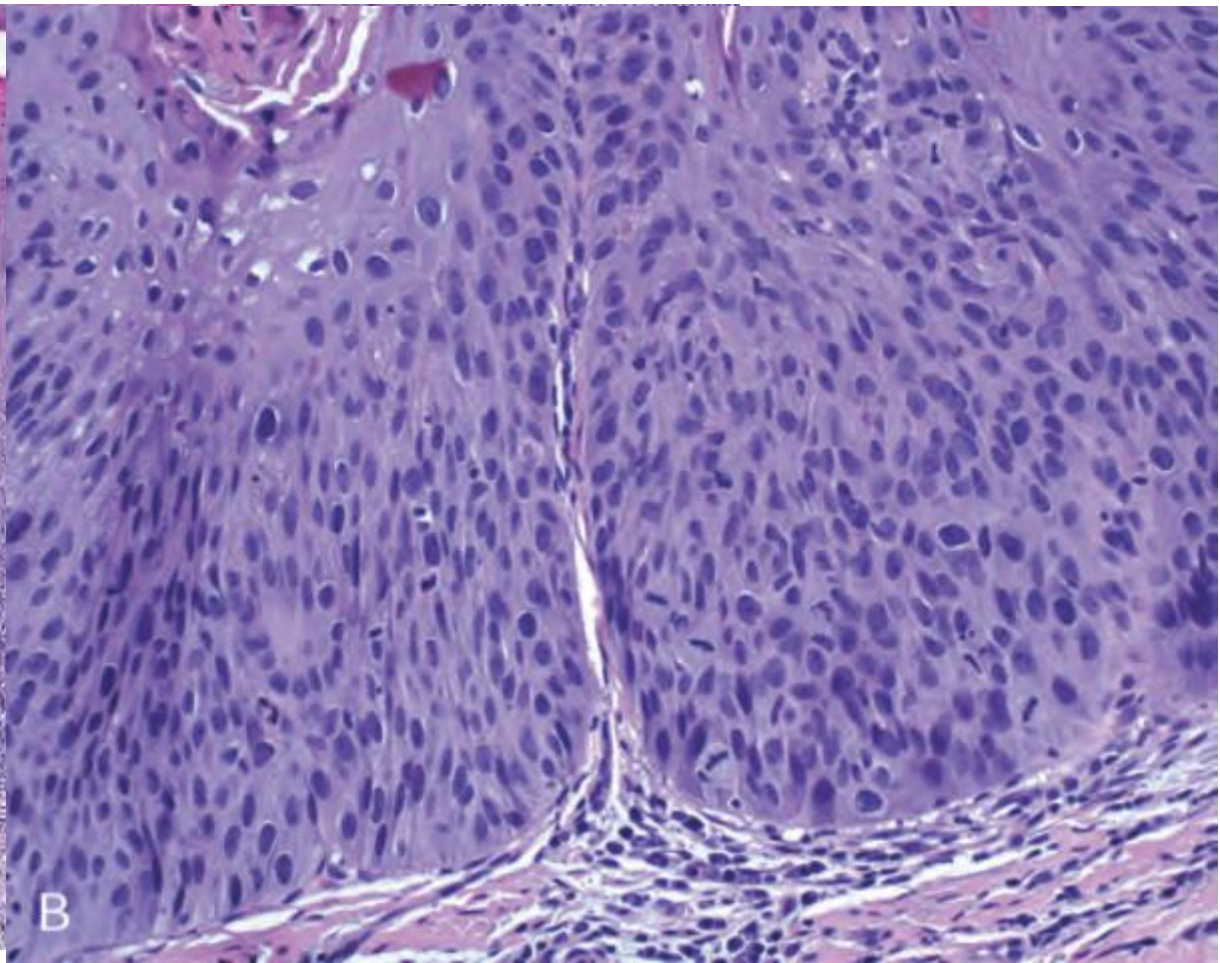
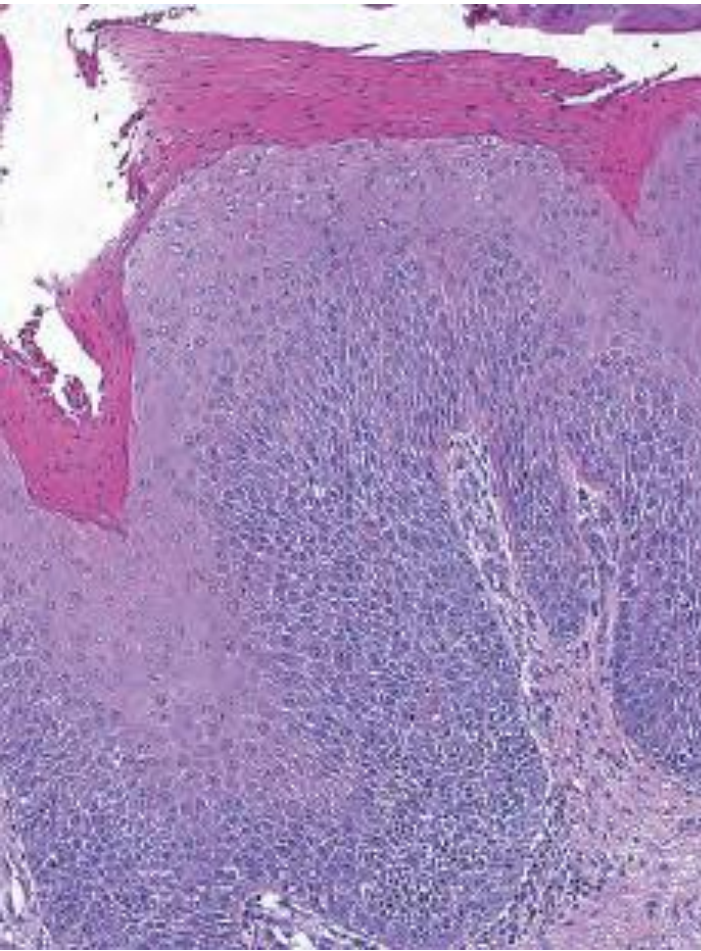
## Erythroplakia

- Red, eroded, slightly depressed
- **Malignant transformation higher**





# Leukoplakia



# Squamous Cell Carcinoma (SCC)

- **95%** of cancers in head n neck.
- Pathogenesis – multifactorial
  - Euro – US: **chronic abusers tobacco n alcohol**
  - India – Asia: **betel quid (*daun sirih, pinang*)**
  - HPV infection (HPV-16)
- HPV-associated SCC oropharynx **increased**
- Surpass HPV-associated SCC cervical in 2020

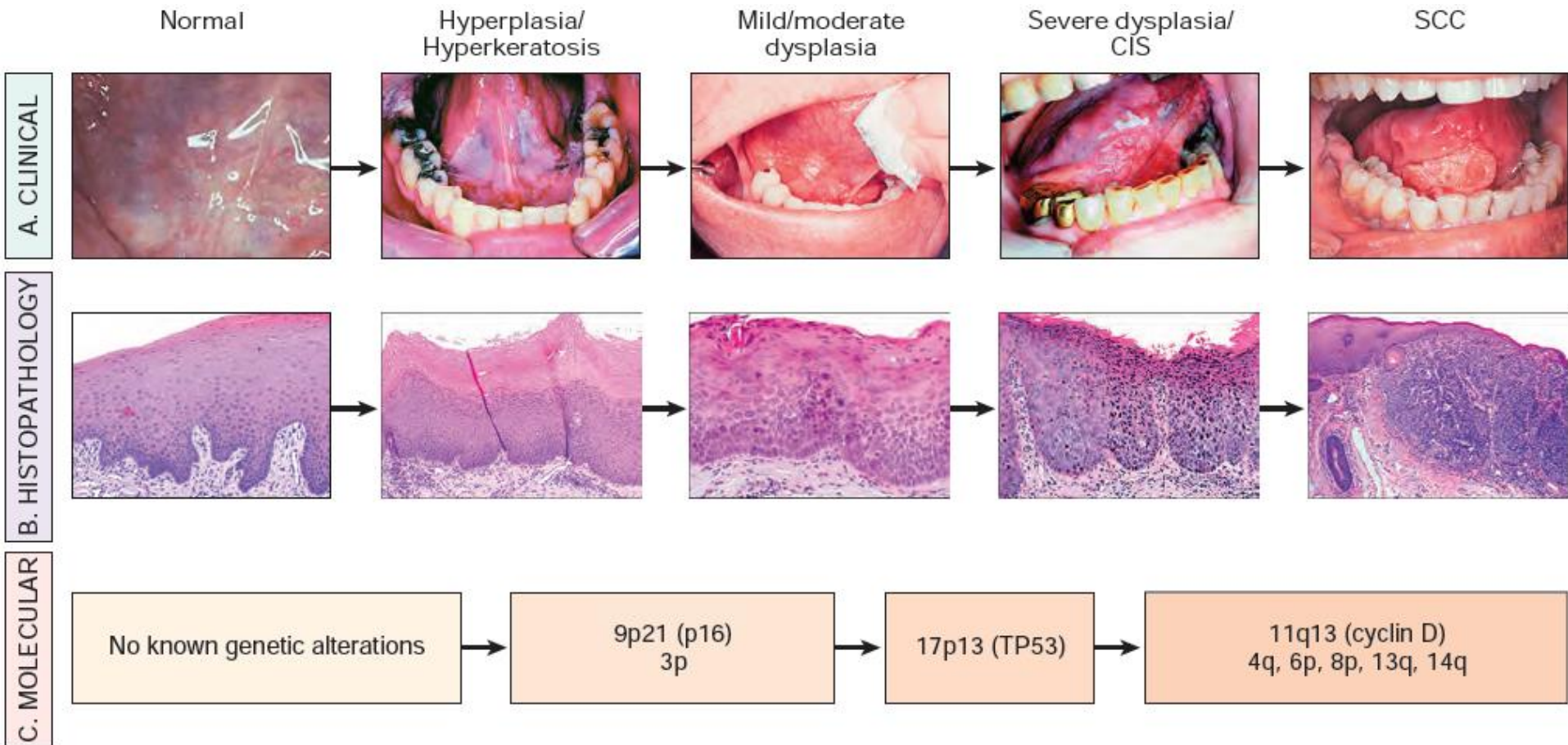
# Development SCC

- Accumulation of mutation and epigenetic changes
- Alter expression and function of oncogenes and tumor supp genes → **p53, RB**

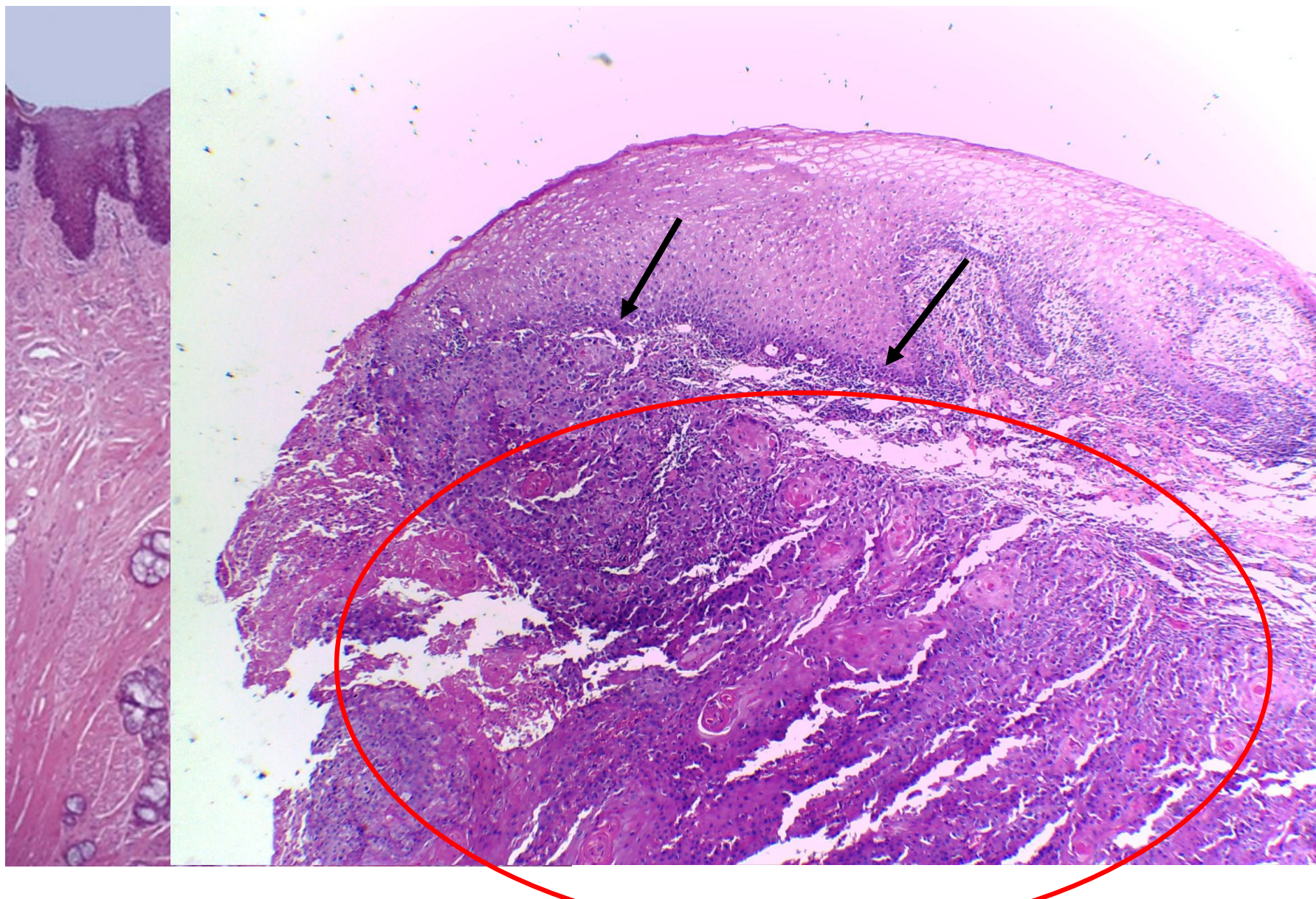
- **Hallmarks of Cancer:**

**Resistance** to cell death, **Proliferation** increased, induction **Angiogenesis**, ability to **Invade** n **Metastasize**



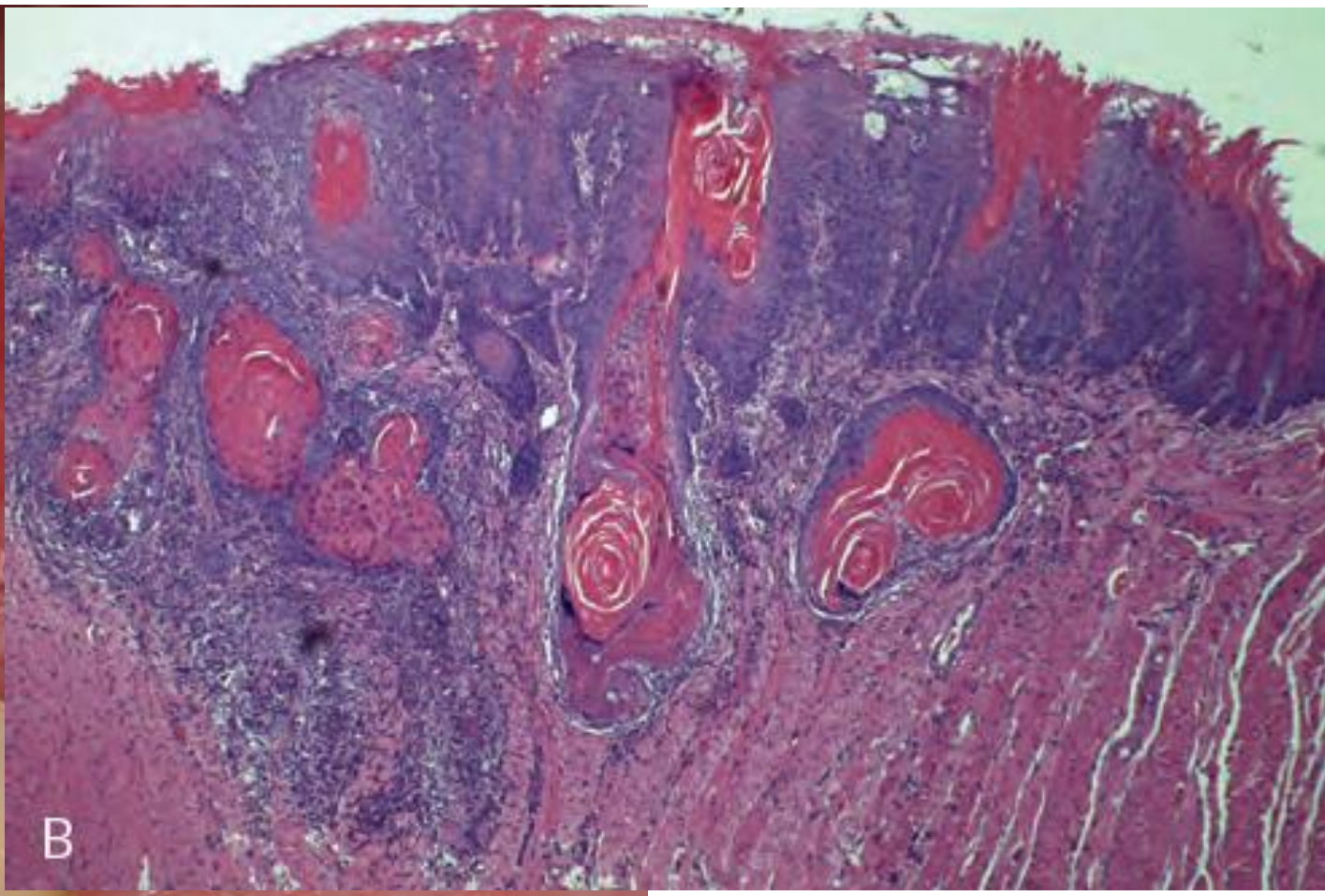








# SCC



Robbins Pathological Basis of Disease 9<sup>th</sup> ed, 2015

# Upper Airways

- Nose
- Nasopharynx
- Larynx

# Nose

## Inflammation

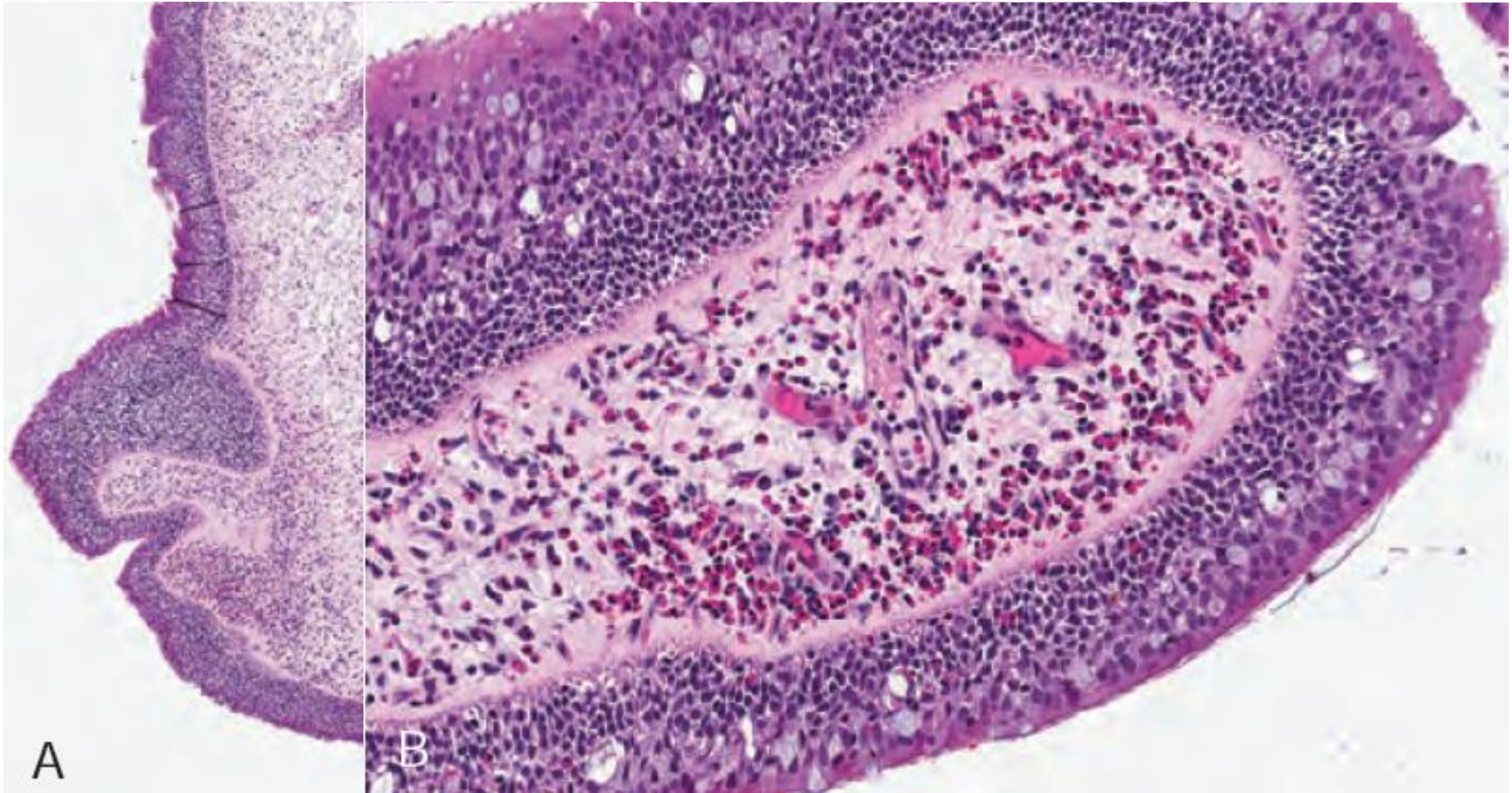
- Infectious rhinitis
- Allergic rhinitis
- Nasal polyps
- Chronic rhinitis
- Sinusitis

## Necrotizing n ulceration

- Acute fungal infections
- Extranodal NK/T-cell lymphoma



# Nasal polyp



Robbins Pathological Basis of Disease 9<sup>th</sup> ed, 2015

# Nasopharynx

## Inflammation

- Pharyngitis, tonsillitis

## Tumors

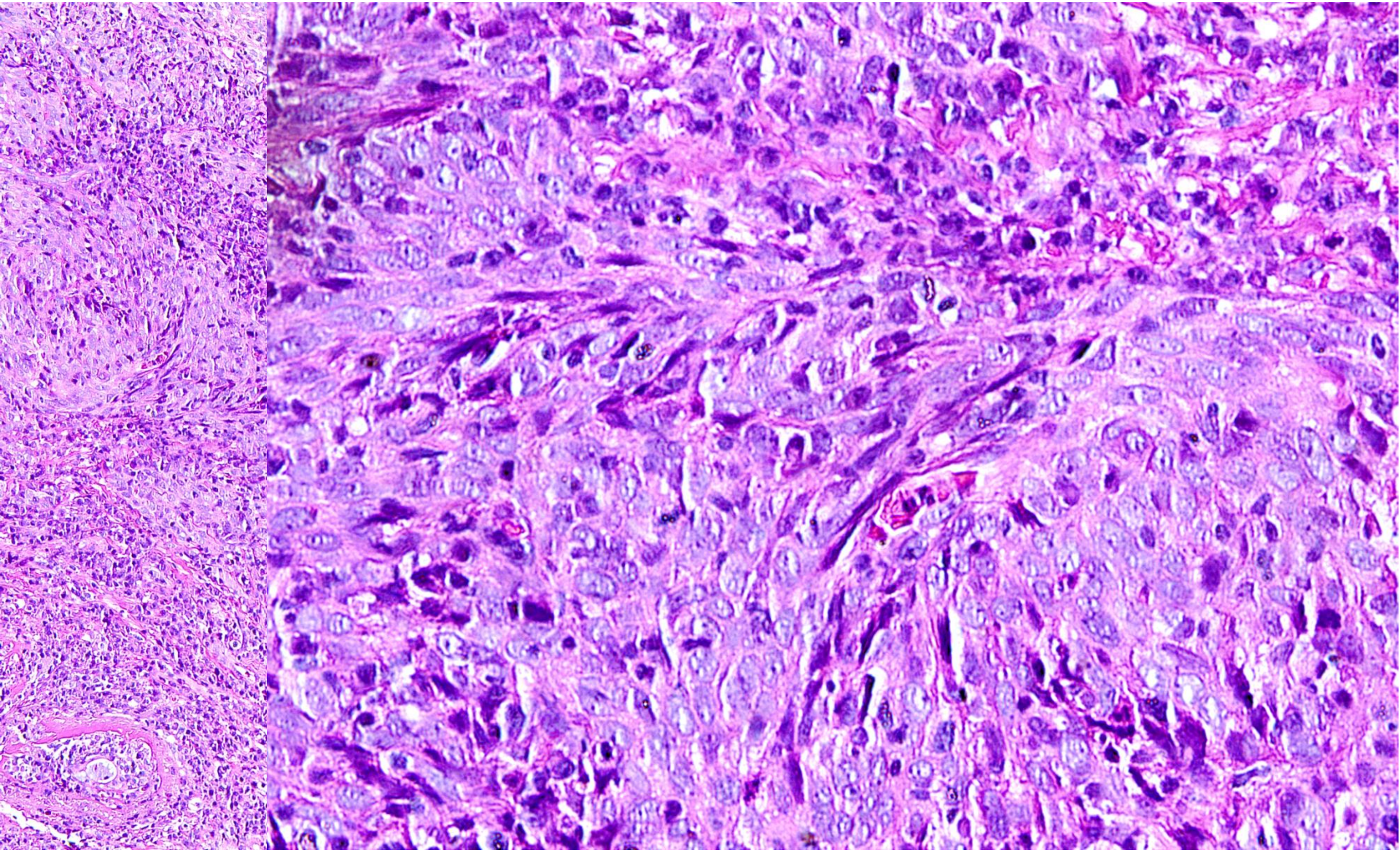
- Nasopharyngeal angiofibroma
- Sinonasal (Schneiderian) papilloma
- Olfactory neuroblastoma
- **Nasopharyngeal carcinoma (NPC)**

# Nasopharyngeal carcinoma (NPC)

- SCC originating from nasopharynx mucosa.
- Distinctive geographic distribution.
- EBV infection.
- Symptoms: neck mass, nasal (post nasal drip, discharge, bleeding, obstruction), tinnitus, ear ache.
- **Enlarged neck nodes.**



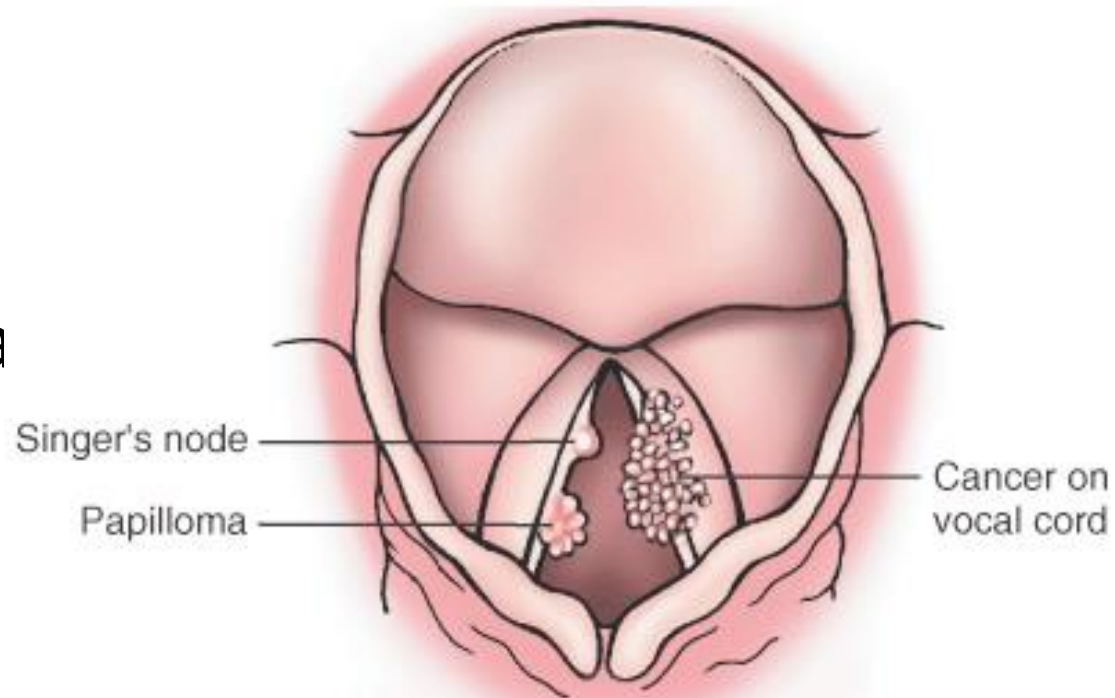
# Nasopharyngeal carcinoma (NPC)



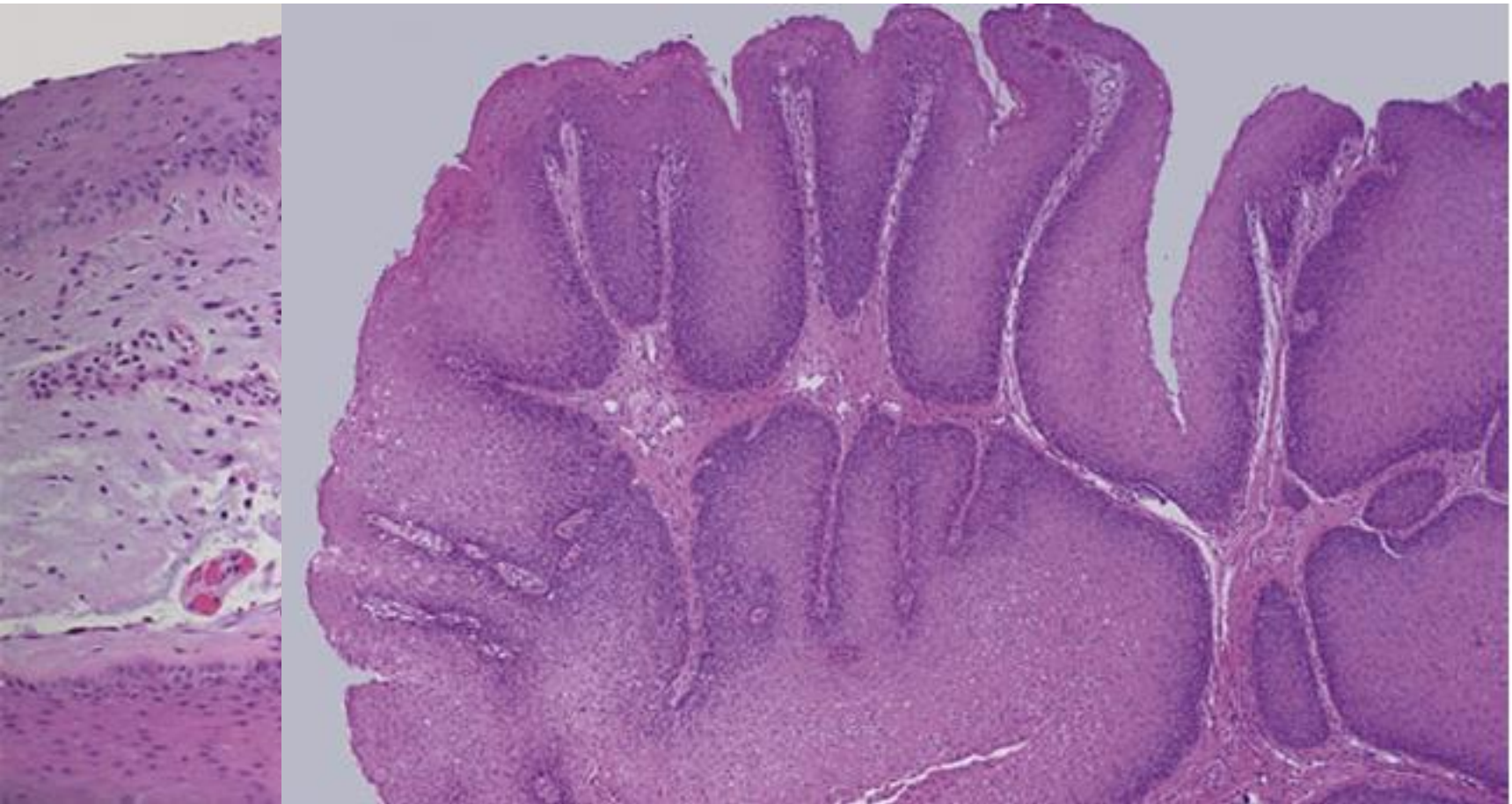


# Larynx

- Inflammation  
Laryngitis
- Tumors  
reactive nodules,  
polyps, carcinoma

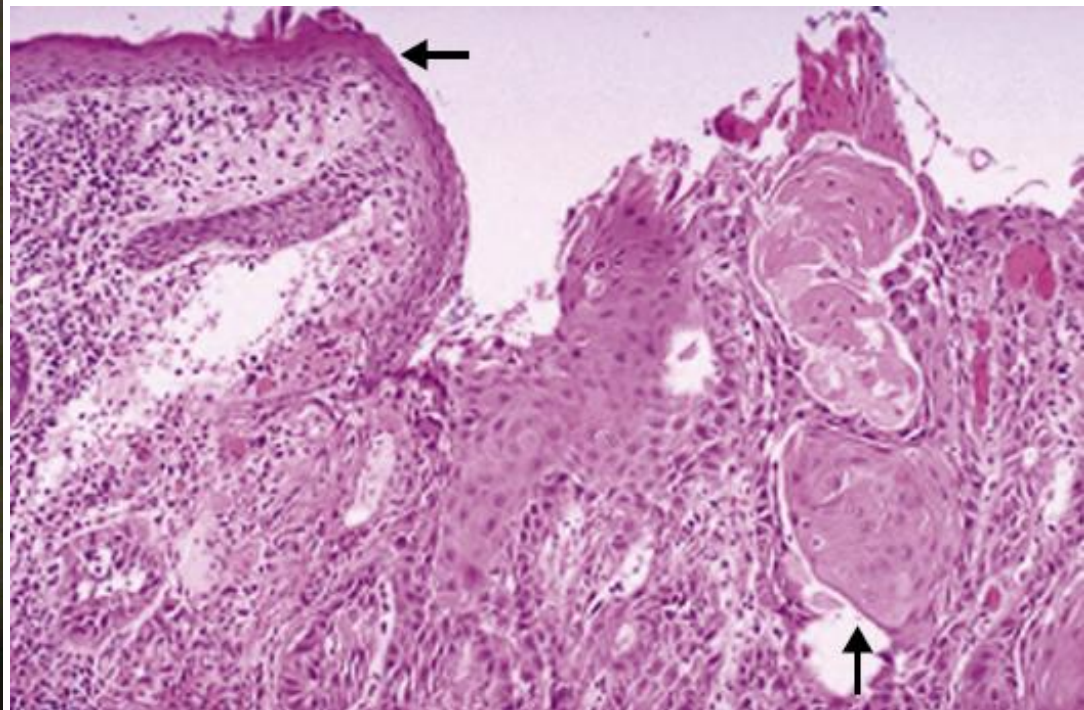


# Polyp - Papilloma



Robbins Pathological Basis of Disease 9<sup>th</sup> ed, 2015

# SCC



Robbins Pathological Basis of Disease 9<sup>th</sup> ed, 2015

# Ears

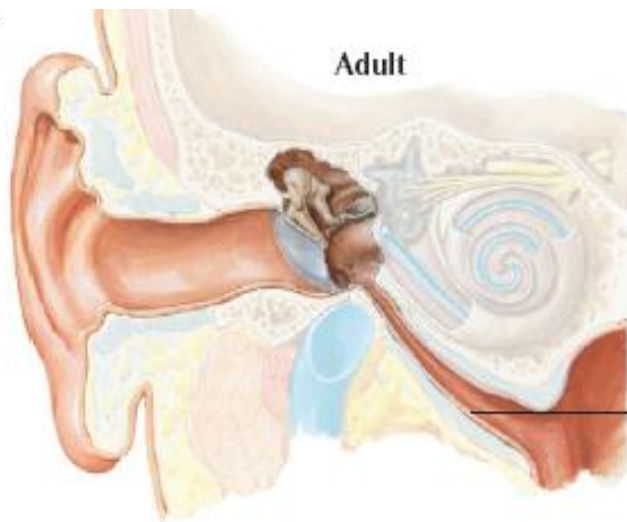
Most common:

- Acute n chronic otitis (middle ear n mastoid) – cholesteatoma
- Otosclerosis
- Polyps
- Labyrinthitis
- Carcinoma – ext ear



# Inflammatory Lesion

- Infants n children
- Viral – superimposed bacteria
- *S. pneumonia*, *H. influenzae*, *M. catarrhalis*



Pharyngotympanic  
(auditory, eustachian)  
tube



Pharyngotympanic  
(auditory, eustachian)  
tube is shorter and  
more horizontal

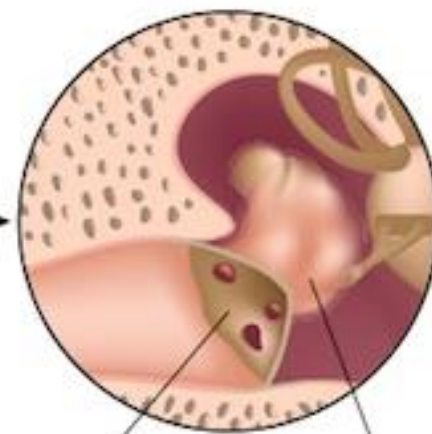
# Cholesteatoma



Normal



Retracted and perforated eardrum



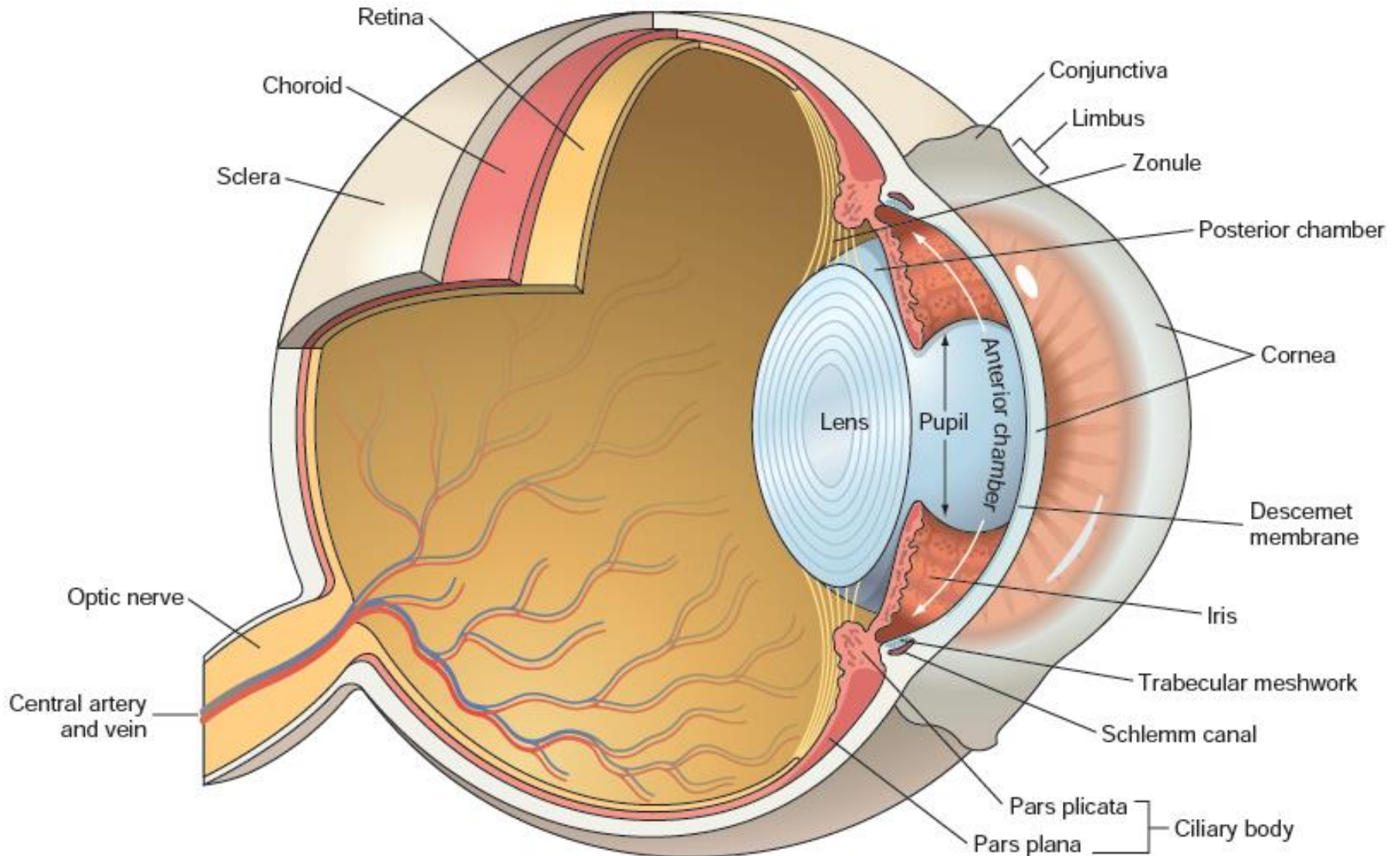
Cholesteatoma

# Tumors

- Rare
- Basal cell Ca n Squamous cell Ca
- Morphology same at other locations



# Eye Pathology



# Eye Pathology

1. Orbit
2. Eyelid
3. Conjunctiva
4. Cornea
5. Uvea
6. Lens
7. Retina/Vitreous
8. Optic Nerve/Glaucoma

# Orbit

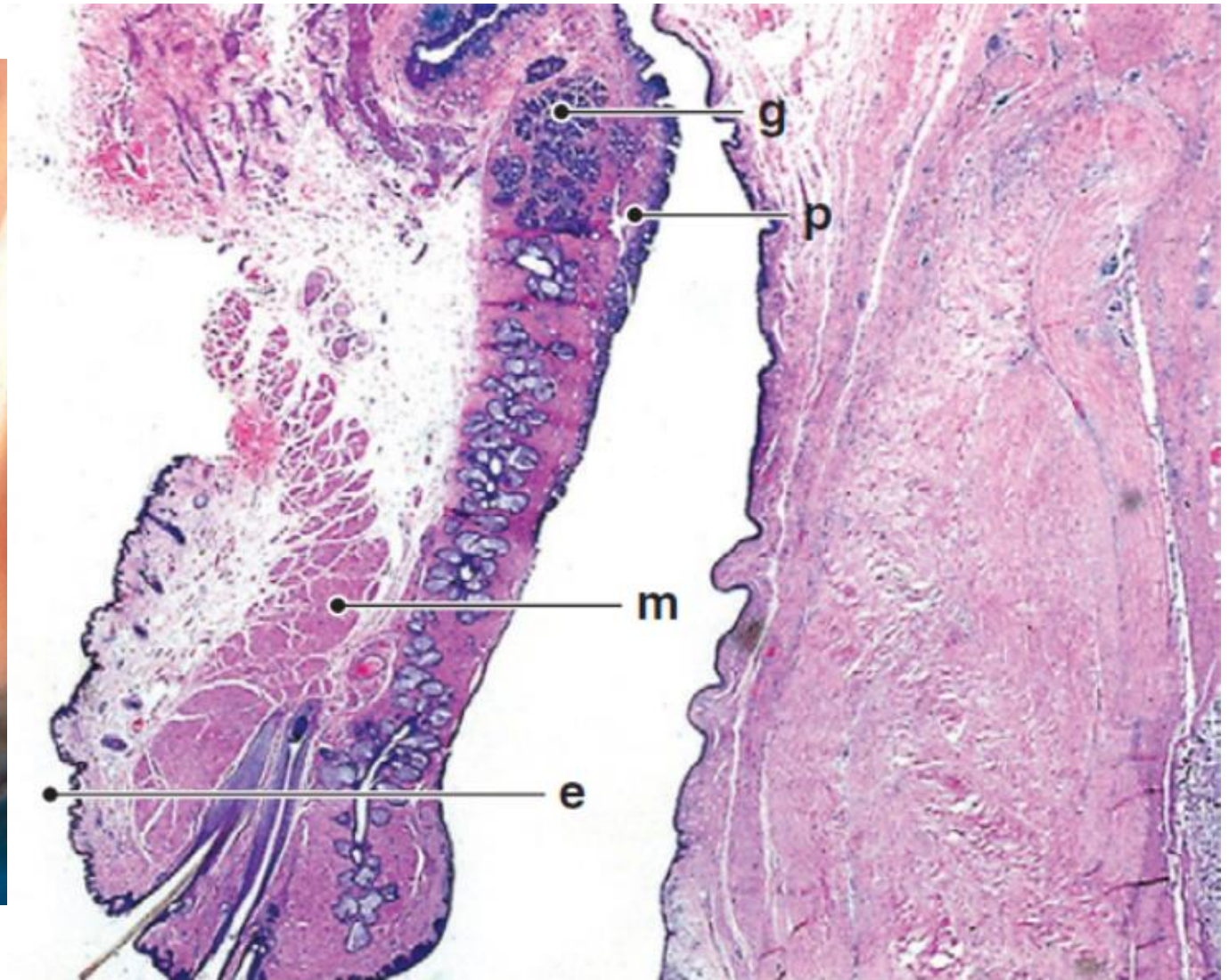
- Inflammation
- Proptosis – Grave's disease
- Tumors: vascular tumor

# Proptosis





# Eyelid



# Eyelid

## Inflammation

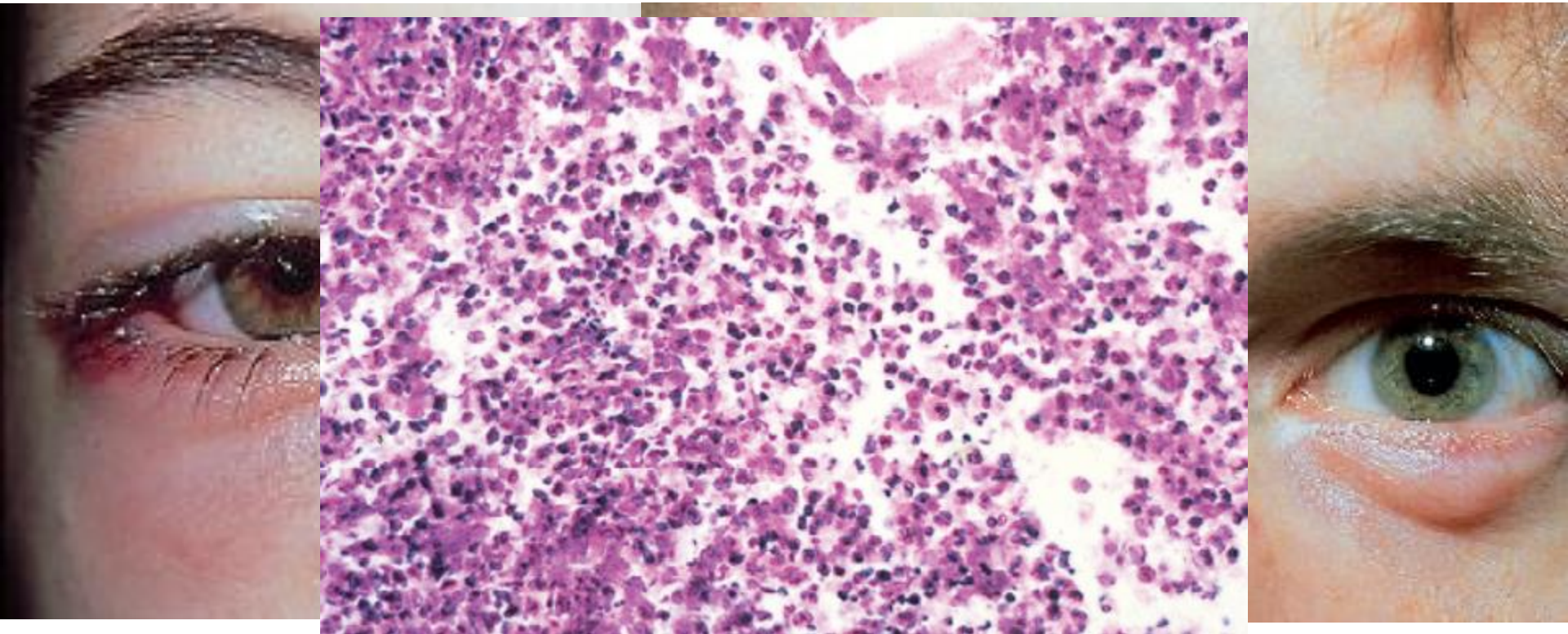
- Blepharitis
- Hordeolum – external n internal
- Chalazion

## Neoplasma

- **Basal cell Ca**



# Eyelid Hordeolum

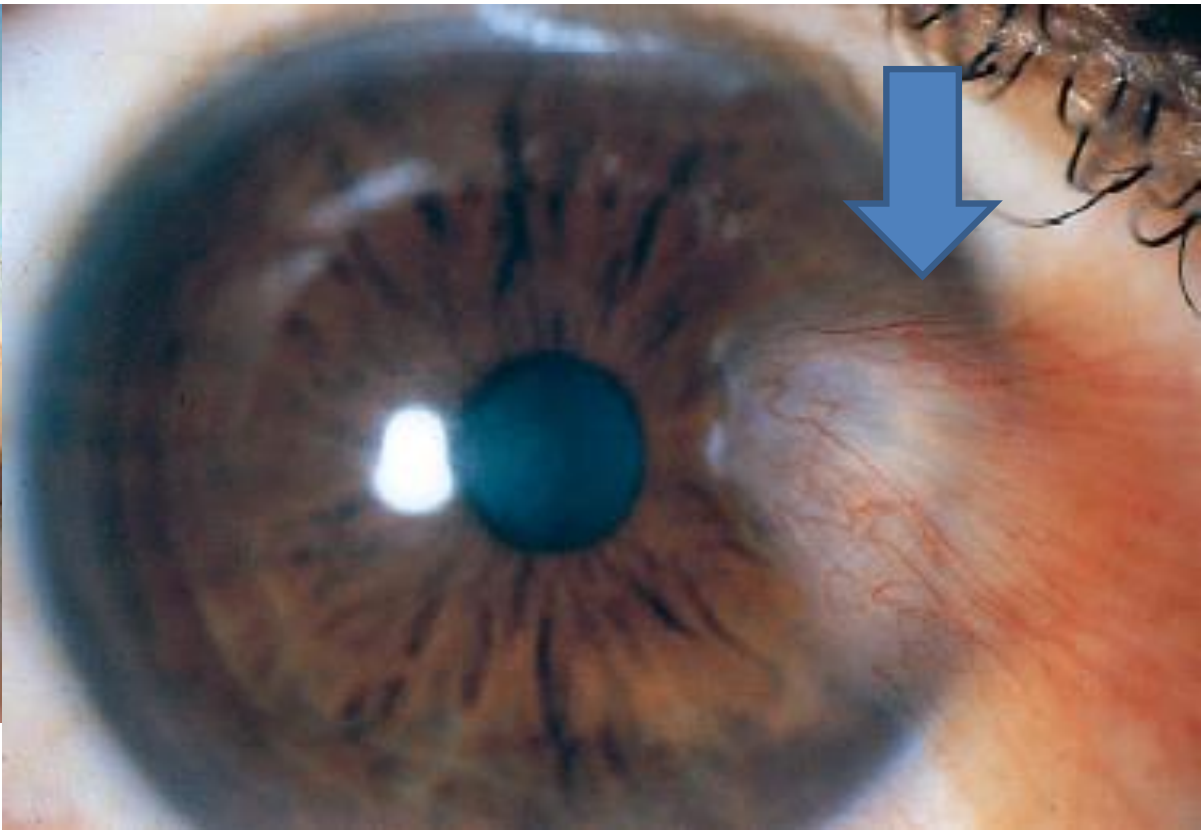
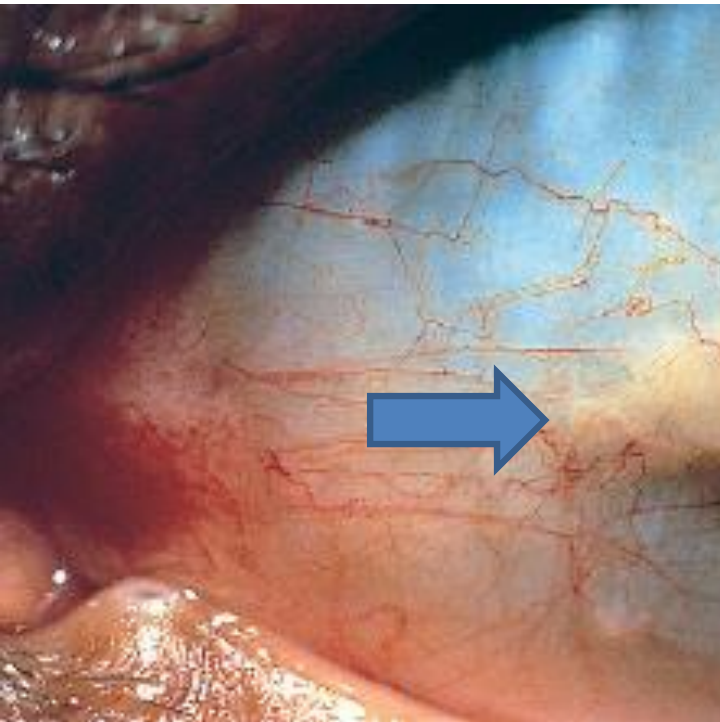


# Conjunctiva

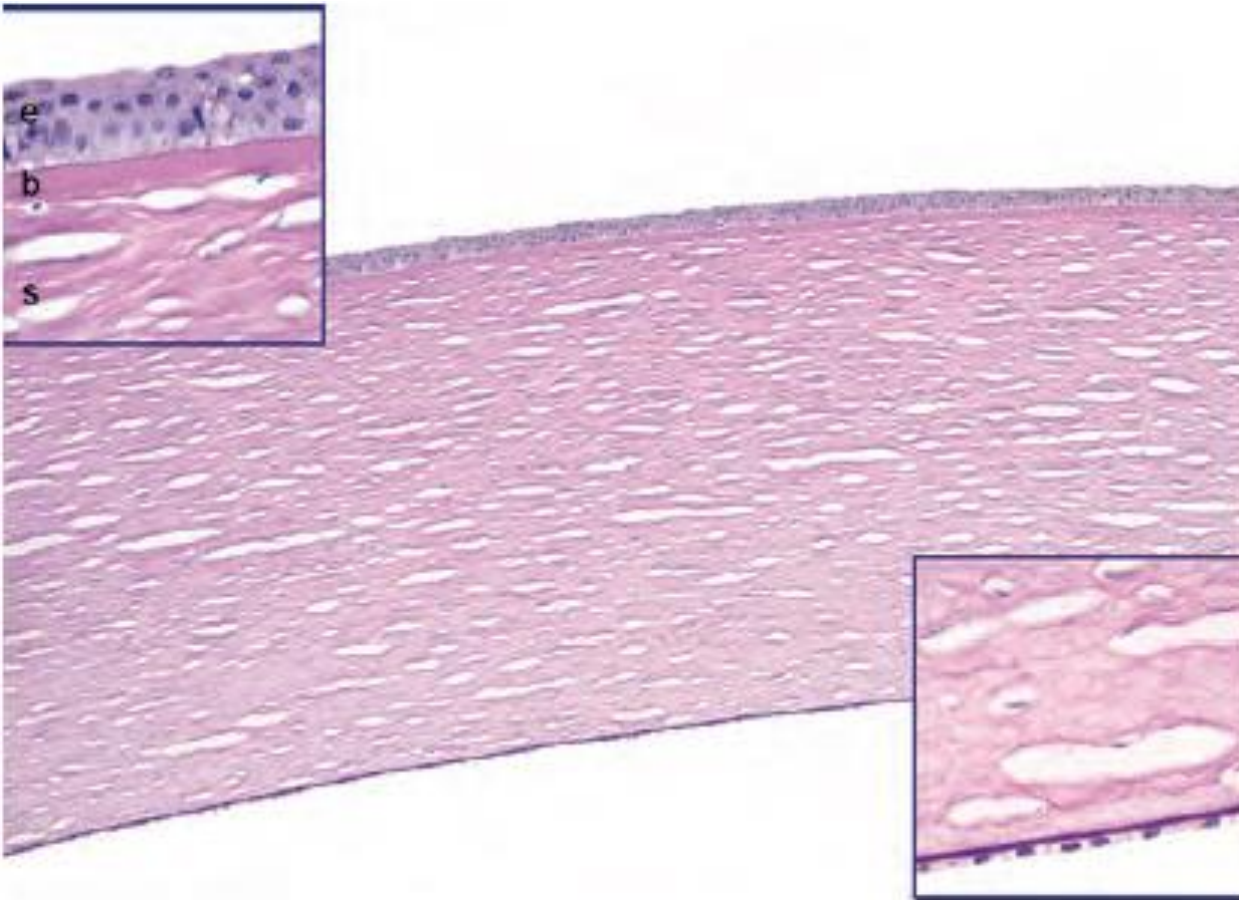
- Conjunctivitis
- Pinguecula and Pterygium
- Neoplasma:
  - CIN (cervical intraepithelial neoplasia) → Squamous Cell Ca
  - Melanoma



# Conjunctiva



# Cornea



- Transparent
- Avascular
- Refractive structure

# Cornea

## 5 Layers:

1. Epithelium
2. Bowman's Membrane
3. Stroma – The thickest central portion (90%).  
Type 1 Collagen
4. Descemet's membrane
5. Endothelium – pumps the water out of the cornea and keeps it clear

# Cornea

- Keratitis n Ulcers
- Frequent in contact lenses
- Bacterial, viral



# Uvea

- Iris
- Choroid – highly vasculars
- Cilliary body
- Uveitis – inflammation
- Tumors: metastatic sites, melanoma

# Retina - Anatomy

Layers (inside to out):

1. Inner limiting membrane
  2. Nerve Fiber Layer
  3. Ganglion Cell Layer
  4. Inner plexiform layer
  5. Inner nuclear layer
  6. Outer plexiform layer
  7. Outer nuclear layer
  8. Photoreceptor segments
  9. Retinal Pigment Epithelium
  10. Bruch's Membrane
- (Choroid)
- (Sclera)



# Retina

- Retinal detachment
- Vasculopathy
- Tumor: Retinoblastoma

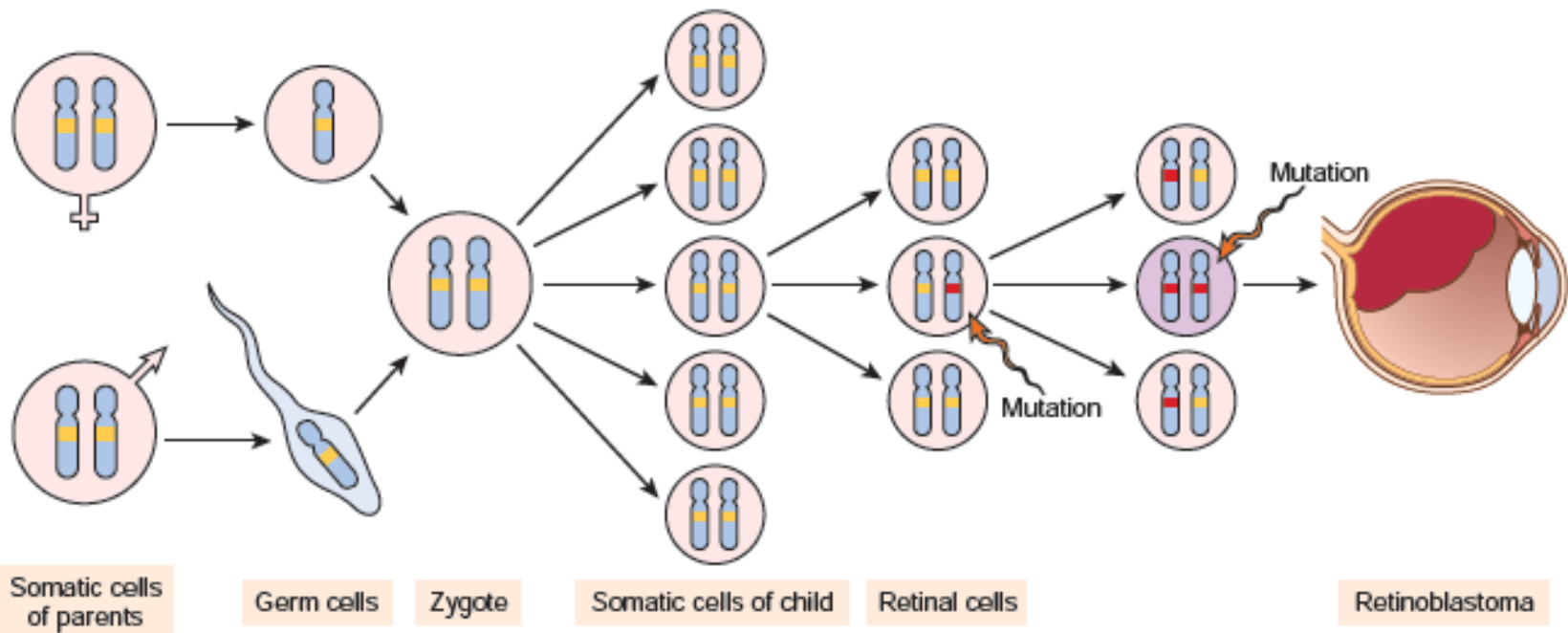
# Retinoblastoma

- Most common primary intraocular malignancy of children.
- Hereditary or sporadic
- Two genes mutations
- Classic histologic: rosettes, small round cells, hyperchromatic nuclei.

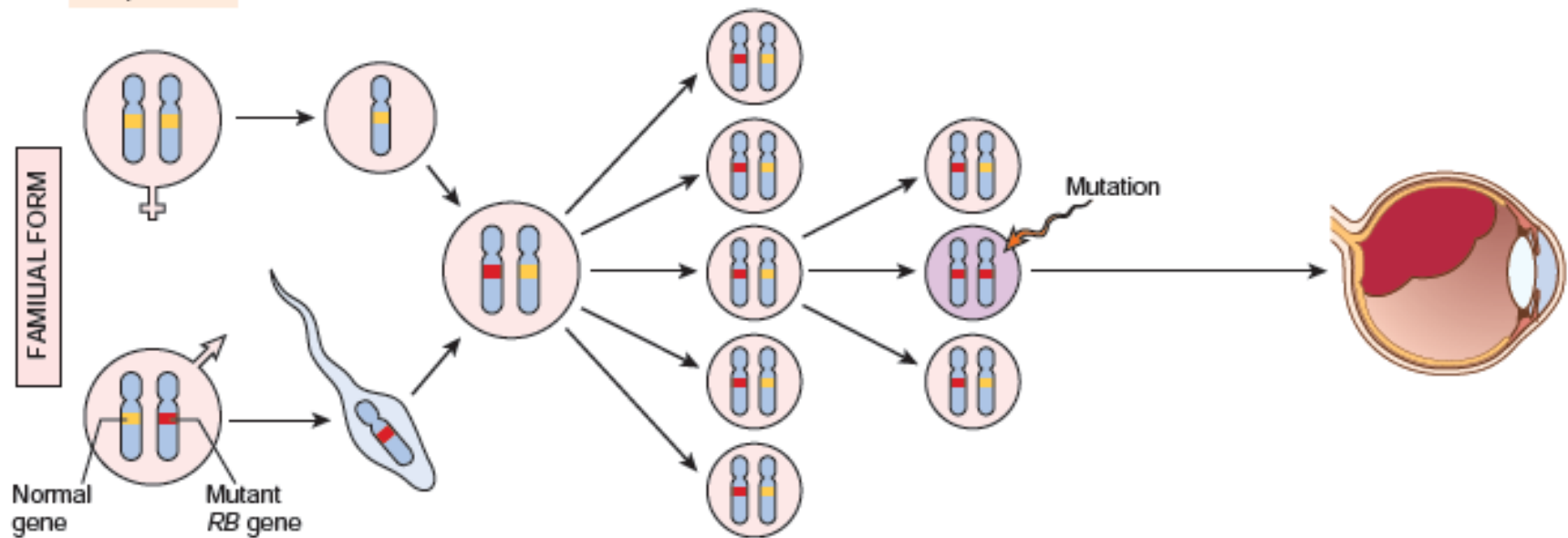


# PATHOGENESIS OF RETINOBLASTOMA

SPORADIC FORM



FAMILIAL FORM



# Retinoblastoma



# Retinoblastoma

